APPROVED JURISDICTIONAL DETERMINATION FORM **U.S. Army Corps of Engineers**

significant nexus

SECTION I: BACKGROUND INFORMATION	SECTION I:	BACKGROUND	INFORMATION
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Α.	REPORT COMPLETION DATE FOR	APPROVED JURISDICTIONAL	DETERMINATION (JD): 19 December 2007.
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В.	DISTRICT OFFICE, FILE NAME, AND NUMBER: <u>Seattle District</u> , <u>WWLLC, NWS-2006-772-NO</u> . Name of water being evaluated on this JD form: <u>Wetlands B and C</u>
C.	PROJECT LOCATION AND BACKGROUND INFORMATION: State: Washington County: King City: Auburn Center coordinates of site (lat/long in degree decimal format): Lat: 47 17 40.9 N, Long: 122 14 53.3 W Universal Transverse Mercator: Name of nearest waterbody: Algona Creek. Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Green River. Name of watershed or Hydrologic Unit Code (HUC): 17110013. Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request. Check if other sites (e.g., offsite mitigation sites, disposal sites, etc.) are associated with this action and are recorded on a different JD form. List other JDs:
	REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY): Office (Desk) Determination. Date: Field Determination. Date(s): 17 Oct 2007.
	CTION II: SUMMARY OF FINDINGS RHA SECTION 10 DETERMINATION OF JURISDICTION.
	re Are no "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the ew area. [Required] Waters subject to the ebb and flow of the tide. Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce. Explain:
В. (CWA SECTION 404 DETERMINATION OF JURISDICTION.
The	re Are "waters of the U.S." within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [Required]
	1. Waters of the U.S. a. Indicate presence of waters of U.S. in review area (check all that apply): TNWs, including territorial seas Wetlands adjacent to TNWs Relatively permanent waters² (RPWs) that flow directly or indirectly into TNWs Non-RPWs that flow directly or indirectly into TNWs Wetlands directly abutting RPWs that flow directly or indirectly into TNWs Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs Impoundments of jurisdictional waters Isolated (interstate or intrastate) waters, including isolated wetlands
	b. Identify (estimate) size of waters of the U.S. in the review area: Non-wetland waters: linear feet width (ft) and/or acres. Wetlands: 4.29 acres.
	c. Limits (boundaries) of jurisdiction based on: Pick List and Pick List Elevation of established OHWM (if known):
	2. Non-regulated waters/wetlands (check if applicable): Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional. Explain: Explain:

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¹ Boxes checked below shall be supported by completing the appropriate sections in Section III below.
² For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).
³ Supporting documentation is presented in Section III.F.

SECTION III: CWA ANALYSIS

Α.	If tl	IWS AND WETLANDS ADJACENT TO TNWs the aquatic resource is a TNW, complete Section III.A.1 and Section III.D.1. only; if the aquatic resource is a wetland jacent to a TNW, complete Sections III.A.1 and 2 and Section III.D.1.; otherwise, see Section III.B below.	
	1.	TNW	
		Identify TNW:	
		Summarize rationale supporting determination:	
	2.	Wetland adjacent to TNW Summarize rationale supporting conclusion that wetland is "adjacent":	
В.	СН	HARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):	
	(per	wetland that directly abuts an RPW is also jurisdictional. If the aquatic resource is not a TNW, but has year-round erennial) flow, skip to Section III.D.2. If the aquatic resource is a wetland directly abutting a tributary with perennial flow ip to Section III.D.4.	7,
	is no sign trib pur	wetland that is adjacent to but that does not directly abut an RPW requires a significant nexus evaluation. If the waterboom of an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has inificant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the butary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical rposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the butary, or its adjacent wetlands, or both.	
	wet	the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite tlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether nificant nexus exists is determined in Section III.C below.	
	1.	Characteristics of non-TNWs that flow directly or indirectly into TNW	
		(i) General Area Conditions:	
		Watershed size: <u>487</u> square miles	
		Drainage area: <u>120</u> acres Average annual rainfall: <u>40</u> inches	
		Average annual snowfall: inches	
		(ii) Physical Characteristics:	
		(a) Relationship with TNW:	
		☐ Tributary flows directly into TNW. ☐ Tributary flows through 1 tributaries before entering TNW.	
		☐ Indutary flows through I tributaries before entering TNW.	
		Project waters are 5-10 river miles from TNW.	
		Project waters are 1 (or less) river miles from RPW. Project waters are 2-5 aerial (straight) miles from TNW.	
		Project waters are 1 (or less) aerial (straight) miles from RPW.	
		Project waters cross or serve as state boundaries. Explain:	
		Identify flow route to TNW ⁵ : wetland B & C, pipe, Algona Cr, Mill Creek, Green River (TNW). Tributary stream order, if known: 1.	
		(b) General Tributary Characteristics (check all that apply):	
		Tributary is: Natural Artificial (man-made). Explain:	
		☐ Artificial (man-made). Explain: Manipulated (man-altered). Explain: trib passes through flood storage pond and has been	
	exca	cavated and straightened and relocated.	
		Tributary properties with respect to top of bank (estimate):	
		Average width: 4 feet	
		Average depth: 2 feet	

⁴ Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West

West.
⁵ Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.

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	Primary tributary substrate composition (check all that apply): Silts Sands Concrete Cobbles Gravel Muck Bedrock Vegetation. Type/% cover: Other. Explain:
	Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: stable . Presence of run/riffle/pool complexes. Explain: none . Tributary geometry: Relatively straight Tributary gradient (approximate average slope): 66 %
(c)	Flow: Tributary provides for: Seasonal flow Estimate average number of flow events in review area/year: Pick List Describe flow regime: Other information on duration and volume:
	Surface flow is: Pick List. Characteristics:
rapidly .	Subsurface flow: Yes. Explain findings: sand strata below 27 inches in Snohomish series soils transmit water moderately
	Dye (or other) test performed: <u>culvert at north end of Wetland B was tested twice to determine whether pipe flow ditch or stormwater detention ponds north across street.</u> No dye was observed.
	Tributary has (check all that apply): Bed and banks OHWM ⁶ (check all indicators that apply): clear, natural line impressed on the bank changes in the character of soil destruction of terrestrial vegetation the presence of wrack line sediment sorting sediment sorting sediment deposition multiple observed or predicted flow events abrupt change in plant community other (list): Discontinuous OHWM. Explain: If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply):
	High Tide Line indicated by: Gil or scum line along shore objects Survey to available datum; Sur
Cha	emical Characteristics: cracterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.). Explain: usually moderately turbid during the wet season, nearly clear as dry season approaches; substantial TSS, coliform bacteria,; low oxygen and high temperatures during later spring, summer and early fall. httify specific pollutants, if known:
through wetla	logical Characteristics. Channel supports (check all that apply): Riparian corridor. Characteristics (type, average width): 100ft. Wetland fringe. Characteristics: mostly very limited except in wetlands 5KKK and 5LLL where Algona Creek flows nd. Habitat for: Federally Listed species. Explain findings: Fish/spawn areas. Explain findings: Other environmentally-sensitive species. Explain findings:

Average side slopes: Pick List.

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⁶A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break.
⁷Ibid.

uck substrat	Aquatic/wildlife diversity. Explain findings: probably limited due to seasonally high temps, turbidity, low oxygen, e in places.
2. Cha	racteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW
(i)	Physical Characteristics: (a) General Wetland Characteristics: Properties: Properties:
	Wetland size: <u>.4.29</u> acres Wetland type. Explain: <u>palustrine emergent, scrub shrub and young forest; was logged in 1980's</u> . Wetland quality. Explain: <u>Generally high because of partial shading, limited inflow from streets, and vegetated</u>
condition	· · · · · · · · · · · · · · · · · · ·
	(b) <u>General Flow Relationship with Non-TNW</u> : Flow is: <u>Intermittent flow</u> . Explain: <u>Wetland B ponds during wet season and appears to have no working surface water</u>
seasonall	obably drains via underlying sand substrata to Wetland C and other filled former wetlands bordering site. Wetland C drains with continuous flow directly into pipe at southwest corner of wetland. Pipe discharges into Wetland 5LLLL about 0.2 miles Algona Creek flows through Wetland 5LLLL. Wetland C probably also contributes to groundwater flows via sand substrata
	charge to Algona and Mill Creeks.
	Surface flow is: Pick List Characteristics:
contain s	Subsurface flow: Yes . Explain findings: <u>possible because of the broad continuum of hydric soils in the area which and strata; Wetland B separated only by a man-made berm from Wetland C to the south.</u>
	☑ Dye (or other) test performed: twice theconsultant placed large amounts of blue dye in Wetland B's northern hen water was high enough to flow into pipe; dye was not observed dicharging into either the stormwater swale on the opposite the stormwater swale on the opposite to the north nor in the Auburn Supermall stormwater ponds.
	(c) Wetland Adjacency Determination with Non-TNW:
	☐ Directly abutting ☐ Not directly abutting
	☐ Discrete wetland hydrologic connection. Explain: see subsurface flow described above. ☐ Ecological connection. Explain:
Algona C	Separated by berm/barrier. Explain: Wetland B and C now separated from each other by narrow berm and from reek by 0.2 to 0.3 of a mile of extensive fill material.
	(d) Proximity (Relationship) to TNW Project wetlands are 5-10 river miles from TNW.
	Project waters are 2-5 aerial (straight) miles from TNW. Flow is from: Wetland to navigable waters. Estimate approximate location of wetland as within the Pick List floodplain.
(ii)	Chemical Characteristics:
	Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: clear based on consultants February 2006 observation . Identify specific pollutants, if known:
(iii)	Biological Characteristics. Wetland supports (check all that apply): Riparian buffer. Characteristics (type, average width):
	 ✓ Vegetation type/percent cover. Explain: 100% vegetated by emergents, shrubs and trees. ☐ Habitat for: ☐ Federally Listed species. Explain findings:
	☐ Fish/spawn areas. Explain findings: ☐ Other environmentally-sensitive species. Explain findings: ☐ Aquatic/wildlife diversity. Explain findings:
3. Cha	racteristics of all wetlands adjacent to the tributary (if any) All wetland(s) being considered in the cumulative analysis: 10 Approximately (85) acres in total are being considered in the cumulative analysis.
	For each wetland, specify the following:

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<u>Directly abuts? (Y/N)</u> <u>Size</u>	e (in acres)	Directly abuts? (Y/N)	Size (in acres)
wetland B/C no	4.29		
wetland A (authorized stormwater pond) no	0.39		
5S no	15		
SAMP 5 & 6 no	8		
5V yes	13		
5W no	24		
5KKKK yes (flood facility)	8		
5LLLL yes (flood facility)	6		

Summarize overall biological, chemical and physical functions being performed: <u>See Section C.3 below for summary</u>.

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1.	Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs. Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D:
2.	Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs. Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:
3.	Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW. Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: Wetlands in this reach totaling about 85 acres sustain groundwater and some overland surface flows in this reach of Algona Creek, which in turn helps sustain (feeding, migration, reproduction) fish and other aquatic organisms including ESA listed and unlisted species of salmon in the Green River (TNW). All of the wetlands in this reach are depressional (constricted) outflow wetlands and perform sediment trapping, water quality improvement (especially total suspended solids, temperature, nitrogen reduction), and flood flow attenuation functions. Although Wetland 5S is occasionally flooded by Algona Creek, the contribution of detrital material by the wetlands in this reach to the TNW is limited by the natural and man-made higher ground between the wetlands and Algona Creek, and the weirs in wetlands 5KKKK and 5LLLL. All of the wetlands contribute or have the potential to contribute cooler (and better oxygenated) water during the spring, summer and early fall to the TNW, presently a water quality limiting factor in the TNW and Mill Creek. Wetland 5S contributions to lower stream temperatures and detrital material will continue to improve as three mitigation/restoration projects in the wetland mature. Mill and Algona Creeks in combination with all of their adjacent wetlands form a riparian corridor to the TNW along which spiny ray fish, minnows, Chinook coho salmon, beaver, muskrats, various rodents, fly larvae, various passerine and shore birds, waterfowl, raptors, and coyotes travel, feed, and reside. Steelhead and bull trout, chum and pink salmon migrate in the Green River (TNW). The relevant reach extends from the confluence of Algona Creek with Mill Creek (just south of State Route 18) to the headwaters of Algona Creek near Wetlands SAMP 5 & 6.
	TERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL AT APPLY):
1.	TNWs and Adjacent Wetlands. Check all that apply and provide size estimates in review area: TNWs: linear feet width (ft), or acres. Wetlands adjacent to TNWs: acres.
2.	RPWs that flow directly or indirectly into TNWs. Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide rationale indicating that tributary flows perennial: Tributaries of TNW where tributaries have continuous flow "seasonally" (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally: Provide estimates for jurisdictional waters in the review area (check all that apply): Tributary waters: linear feet width (ft). Other non-wetland waters: acres.
•	Identify type(s) of waters:
3.	Non-RPWs ⁸ that flow directly or indirectly into TNWs. Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.
	Provide estimates for jurisdictional waters within the review area (check all that apply): Tributary waters: linear feet width (ft). Other non-wetland waters: acres. Identify type(s) of waters:
4.	Wetlands directly abutting an RPW that flow directly or indirectly into TNWs. Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands. Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW:
	Wetlands directly abutting an RPW where tributaries typically flow "seasonally." Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW:

⁸See Footnote # 3. Version 8-31-07

D.

		Provide acreage estimates for jurisdictional wetlands in the review area: acres.
	5.	Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs. Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisidictional. Data supporting this conclusion is provided at Section III.C.
		Provide acreage estimates for jurisdictional wetlands in the review area: <u>4.29</u> acres.
	6.	Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs. Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.
		Provide estimates for jurisdictional wetlands in the review area: acres.
	7.	Impoundments of jurisdictional waters. As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional. Demonstrate that impoundment was created from "waters of the U.S.," or Demonstrate that water meets the criteria for one of the categories presented above (1-6), or Demonstrate that water is isolated with a nexus to commerce (see E below).
E.	DEC SUC	LATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, GRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY CH WATERS (CHECK ALL THAT APPLY): 10 which are or could be used by interstate or foreign travelers for recreational or other purposes. from which fish or shellfish are or could be taken and sold in interstate or foreign commerce. which are or could be used for industrial purposes by industries in interstate commerce. Interstate isolated waters. Explain: Other factors. Explain:
	Iden	tify water body and summarize rationale supporting determination:
		ride estimates for jurisdictional waters in the review area (check all that apply): Tributary waters: linear feet width (ft). Other non-wetland waters: acres. Identify type(s) of waters: Wetlands: acres.
F.		N-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY): If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements. Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce. Prior to the Jan 2001 Supreme Court decision in "SWANCC," the review area would have been regulated based solely on the "Migratory Bird Rule" (MBR). Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain: Other: (explain, if not covered above):
	factoriudg	ride acreage estimates for non-jurisdictional waters in the review area, where the <u>sole</u> potential basis of jurisdiction is the MBR ors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional ment (check all that apply): Non-wetland waters (i.e., rivers, streams): linear feet width (ft). Lakes/ponds: acres. Other non-wetland waters: acres. List type of aquatic resource: Wetlands: acres.
		ride acreage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard, where such ding is required for jurisdiction (check all that apply): Non-wetland waters (i.e., rivers, streams): linear feet width (ft).

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⁹ To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.
¹⁰ Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA Memorandum Regarding CWA Act Jurisdiction Following Rapanos.

Lakes/ponds:	acres.		
Other non-we	tland waters:	acres. List type of aquatic resource:	
Wetlands:	acres.		

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SECTION IV: DATA SOURCES.

A. SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked
and requested, appropriately reference sources below):
Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant:
Data sheets prepared/submitted by or on behalf of the applicant/consultant.
Office concurs with data sheets/delineation report.
Office does not concur with data sheets/delineation report.
☐ Data sheets prepared by the Corps:
Corps navigable waters' study:
U.S. Geological Survey Hydrologic Atlas:
USGS NHD data.
USGS 8 and 12 digit HUC maps.
U.S. Geological Survey map(s). Cite scale & quad name:
USDA Natural Resources Conservation Service Soil Survey. Citation:
National wetlands inventory map(s). Cite name:
State/Local wetland inventory map(s):
FEMA/FIRM mans:
100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929) Photographs: Aerial (Name & Date): Google 2003 imagery
Photographs: Aerial (Name & Date): Google 2003 imagery
or Other (Name & Date):
Previous determination(s). File no. and date of response letter: <u>NWS-2006-772 Corps wetland delineation confirmation MFR dated</u>
3 Oct 2006; Mill Creek Special Area Management Plan, Seattle District, April 2000.
Applicable/supporting case law:
Applicable/supporting scientific literature:
Other information (please specify): <u>attached MFR dated 17 Dec 2007</u> .
B. ADDITIONAL COMMENTS TO SUPPORT JD:

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